FILED
10-24-16
04:59 PM

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

In The Matter of the Application of SAN DIEGO GAS & ELECTRIC COMPANY (U 902 E) for a Certificate of Public Convenience and Necessity for the South Orange County Reliability Enhancement Project	Application 12-05-020 (Filed May 18, 2012)

REPLY COMMENTS OF FOREST RESIDENTS OPPOSING NEW TRANSMISSION LINES ("FRONTLINES") ON THE ALTERNATIVE PROPOSED DECISION OF PRESIDENT PICKER

JACQUELINE AYER
On behalf of FRONTLINES
2010 West Avenue K, #701
Lancaster, CA 93536
(949) 278-8460
Email: AirSpecial@aol.com

October 24, 2016

Pursuant to Rule 14.3(d), Forest Residents Opposing New Transmission Lines ("FRONTLINES") hereby submits these Reply Comments on the Alternative Proposed Decision ("Alt PD") of President Picker. Specifically, FRONTLINES addresses Comments on the Alt PD filed by San Diego Gas & Electric ("SDGE") and the California Independent System Operator ("CAISO").

THE ALERNATIVE PROPOSED DECISION IS NOT WELL REASONED BECAUSE IT DEFERS TO CAISO

In comments on the Alt PD, SDGE asserts that it "supports the Alternate Decision as well-reasoned and supported by substantial evidence". SDGE is incorrect. The Alt PD appears to recommend that the Commission "defer" to CAISO in the approval of SOCREP, which does not comply with either the Public Utilities Code or CEQA [see FRONTLINES Comments on Alternative Proposed Decision – pages 1-14].

In comments on the Alt PD, CAISO supports the Alt PD's SOCREP approval and advocates the Commission reject Trabuco Alternative J based (in part) because it did not undergo a "rigorous multi-stakeholder review process, such as the CAISO's transmission planning process". This statement bears further scrutiny. FRONTLINES submits that, when it considered SOCREP in the 2010-2011 transmission planning process, CAISO may not have implemented a particularly "rigorous" review of reliability projects. In fact, CAISO's consideration of reliability projects in the 2010-2011 TP was generally constrained to projects and alternatives that conform to what the utilities themselves recommend. CAISO did not "cast a net" to consider a reasonable range of alternatives, therefore FRONTLINES disagrees with CAISO's characterization of the 2010-2011 TP as "rigorous". FRONTLINES also submits that, while CAISO's transmission planning process involves the solicitation of stakeholder comments, it does not compel CAISO to accord any weight to such input. For instance, stakeholder comments submitted in the 2010-2011 TPP regarding SOCREP raised a number of concerns addressed by intervenors in this proceeding[1], but it does not appear that CAISO adjusted any SOCREP project elements in response to these stakeholder comments. Finally, FRONTLINES points out that CAISO's "review process" is subject to a far less "rigorous" standard than that imposed on the Commission by either PUC 1001 (for public "need" and "convenience" of a project) or CEQA (for environmental impact mitigation). For these reasons, the Commission should reject SDGE's and CAISO's position that the Alt PD's approval of SOCREP is appropriate and "well-reasoned".

THE COST OF TRABUCO ALTERNATIVE J

SDGE states that FRONTLINES "guessed" at the $91 million estimate for the Trabuco Alternative J. SDGE is incorrect. As set forth in FRONTLINES Opening Brief and Section 5.0 of Exhibit 401C, the $91 million cost for Trabuco Alternative J is based entirely on CAISO's and SDGE cost parameters and on WECC cost profiles. It is

---

1 Both UCAN and "Save the Foothills" pointed out many errors in CAISO's analysis http://www.caiso.com/2b7d/2b7dc95279c0.pdf

also based on current commercial real estate valuation data in the vicinity of the Trabuco 230 kV substation site. FRONTLINES did not "guess" at anything; to the contrary (and as set forth in Exhibit 401C), FRONTLINES exposed substantial errors in CAISO's and SDGE's cost estimate for Trabuco Alternative J, including:

- CAISO's and SDGE's cost estimate for Trabuco Alternative J wrongly includes $89-109 million for the addition of up to 400 MVAR of reactive equipment at Trabuco to ostensibly "support" SCE's system even though SCE itself is installing 225 MVAR of reactive support at Santiago where Trabuco Alternative J Interconnects [Exhibit 450] AND, SDGE is similarly installing reactive support at SONGS and at San Luis Rey[2]. Not a shred of evidence has been placed in the SOCREP record to indicate (or even suggest) that any reactive support would be required at the new Trabuco substation (let alone 400 MVARs). Therefore, SDGE and CAISO have artificially inflated the cost of Trabuco Alternative J by $89-109 million for unnecessary equipment.

- CAISO's and SDGE's cost estimate for Trabuco Alternative J wrongly includes the replacement of the Talega STATCOM at the end of its life even though SDGE confirms that SOCREP itself relies on the STATCOM, and that, even if SOCREP is constructed, when the STATCOM is at the end of its life, SDGE "hopes" it will either "find a fix" or "not require" the STATCOM anymore.[3] This, coupled with the fact that the STATCOM will not reach the end of its life until well beyond the 10 year planning horizon established for this proceeding[4] demonstrates the error in CAISO's and SDGE 'STATCOM inflation' of the Trabuco Alternative J costs.

- CAISO and SDGE's cost estimate for Trabuco Alternative J is also wrongly inflated by more than $100 million to "re-build" the Trabuco 138 kV distribution substation which FRONTLINES conclusively demonstrated was absolutely unnecessary. [5]

- CAISO and SDGE's cost estimate for Trabuco Alternative J also wrongly includes the cost to rebuild Capistrano substation. As FRONTLINES has pointed out many times, SDGE should have addressed the reliability concerns associated with the dilapidated equipment at Capistrano decades ago. SDGE's shameful failure to do so has materially threated electrical service to SDGE's SOC customers *for decades*. FRONTLINES has also pointed out that the problems at Capistrano are unrelated to future reliability concerns that stem from SOC load growth. Therefore they are only relevant in the SOCRE Proceeding in the contemplation of alternatives which (like SOCREP) actually rely on a rebuilt Capistrano; and cannot be added to alternatives (such as Trabuco Alternative J) that do not require a rebuilt Capistrano.

A number of other errors are set forth in SDGE's analysis of FRONTLINES cost estimate[6]. Taken together, these

---

2 FERC Docket ER16-445-000.

3 SDGE Witness Smith stated that SOCREP itself will have voltage problems when the STATCOM fails, and he expressed "hope" for SOCREP that, "at the end of the STATCOM's life either the STATCOM will not be required or someplace out in the distribution system we will find a fix" [transcript page 1138 at 7 to 1139 at 2].

4 FRONTLINES Exhibit 400.1C at 20-22

5 FRONTLINES Opening Brief at 26-28.

6 SDGE claims that FRONTLINES $10 million land purchase and SDGE relocation cost is inconsistent with ATT's $7 million relocation cost estimate. This makes no sense, because FRONTLINES cost accommodates ATT's $7 million relocation and provides $3 million for land purchase, which is more than enough, based on the real property purchase data that FRONTLINES provided in Opening Brief FN 142 which showed a nearby 8 acre industrial parcel sold for $8 million, (or $1 million per acre). Therefore $3 million is sufficient for a parcel that is less than 3 acres. Additionally, FRONTLINES more than doubled the WECC cost estimate for the overhead 230 kV lines. SDGE also wrongly contends that FRONTLINES has no evidentiary support for the "overhead lines"; the evidentiary hearings explored these "overhead lines" in detail [see Volumes 4 and 5], and SDGE's Witness Thomas averred that SDGE had not found them to infeasible. [Tr 649 at 10]). So all of SDGE's criticisms of FRONTLINES' Trabuco Alternative J costs are baseless and lack foundation.

facts demonstrate that it is SDGE and CAISO who have "guessed" at the cost of Trabuco Alternative J by adding equipment and substation rebuilding costs that are not supported by any credible evidence (or any evidence at all for that matter).

IT IS NEITHER A FACTUAL OR LEGAL MISTAKE TO CONCLUDE THAT SDGE'S PEAK LOAD FORECASTS ARE OVERPREDICTIVE AND ERRONEOUS.

SDGE contends (wrongly) that it is a "factual and legal mistake" to conclude that SDGE's load forecasts are not accurate [page 7]. SDGE supports this erroneous claim by simply stating that SDGE's load forecasts are based on a "1 in 10 year" peak load forecast model which the Commission itself has approved. This is not the point, and SDGE obfuscates in pretending that it is. It is not SDGE's use of a "1 in 10 year" model that renders SDGE's load forecast inaccurate, rather it is SDGE's unrealistically high incremental *load growth*. According to SDGE, this "load growth" is supposedly based on "past load levels, estimated population and load growth, changes in load composition, effects of energy efficiency programs, etc." [SDGE Exhibit 2.2RC 55 at 9]. However, none of these factors support the significant (13%) SOC load growth that SDGE predicts will occur.[7] To the contrary, they all point to load stagnation and even load reduction over the next 10 years:

- City & County Climate Acton Plans adopted pursuant to AB32 reduce energy use up to 20%.
- New energy efficiency standards for all new construction,
- Orange County population growth of less than 1% per year since 2010 (mostly in the north in SCE territory).
- SOC peak load has consistently remained below 442 MW since 2008.

Despite this, SDGE continues to predict significant (13%) SOC load growth in the next 10 years[8] without explaining the basis for this prediction or addressing the discrepancies noted above.

Finally, FRONTLINES points out that the whole purpose of "forecast load" is to provide a baseline for determining future load conditions so that transmission infrastructure can be properly planned. Therefore, at its core, "load growth" predictions must reasonably represent future conditions, else there is little point to them. So it is both reasonable and appropriate for the Commission to assess the "accuracy" of SDGE's "load growth" predictions by "looking backwards" to see how accurate they have been in the past, particularly when contemplating the approval of a nearly half billion dollar project to address reliability concerns stemming from these "load growth" predictions, and in light of the fact that project alternatives (such as FRONTLINES Reconductoring Alternative) will address all of these future reliability concerns.

---

7 Table 2-1 of SDGE Exhibit 2.2RC.

8 SDGE "explains" its load growth estimate by simply stating "Past and present forecasts have shown growth in South Orange County and the rate of growth is accelerating" [Exhibit 2.2RC page 58]. SDGE provides no facts or census data or any information to support this statement; it just slaps it down and demands that we all believe it and accept it. FRONTLINES does not believe and will not accept it until SDGE proves it, and the Commission should not either.

TRABUCO ALTERANTIVE J WILL NOT RESULT IN NERC VIOLATIONS

As FRONTLINES has demonstrated, Trabuco Alternative J will not result in NERC violations. SDGE's and CAISO's arguments to the contrary all stem from unfounded concerns pertaining to "loop flow" conditions that both SDGE and CAISO witnesses admit can be eliminated by disconnecting SOC from the Santiago - Trabuco line. SDGE's and CAISO's criticism of Trabuco Alternative J are unfounded as FRONTLINES' Briefs have clarified:

1. SDGE's analysis of Trabuco Alternative J (SDGE EX 5C Table 2-2) assumes > 500MW SOC load and identifies exceedences on TL13834 (which SDGE admits are easily remedied - SDGE Ex 5C:34 at 21-22) and three events on TL13846C (not NERC violations) remedied by reconductoring ½ mile of line. The remaining scenarios involve "loop" flow" that is easily eliminated by disconnecting SOC from the Santiago-Trabuco line [FRONTLINES' Opening Brief at 2.3.3.1).

2. CAISO's analysis of Trabuco Alternative J [Exhibit 505 Table 1 & Exhibit 436 Table 1] indicates an overload on the single Trabuco transformer which CAISO admits is eliminated by adding a second transformer. All the rest involve "loop flow" that is easily eliminated by disconnecting SOC from Santiago-Trabuco line [FRONTLINES' Opening Brief at 2.3.3.1].

FRONTLINES also notes that every one of the Trabuco Alternative J "overloads" that CAISO identifies on page 14 of its comments on the Alt PD involve "loop flow" conditions, therefore every one of them is avoided by simply disconnecting SOC from the Santiago-Trabuco line [FRONTLINES' Opening Brief at 2.3.3.1].

REBUILDING CAPISTRANO IS NOT A LEGITIMATE PROJECT OBJECTIVE

In its comments on the Alt PD, SDGE insists that rebuilding Capistrano should be included as a project objective. However, adding "Rebuild Capistrano" as a project objective is precluded by both CEQA and the Public Utilities Code, therefore it would be a factual and legal error to do so:

- Under CEQA, each alternative that is considered (including the "no project" alternative) is burdened only by the impacts that it poses in furtherance of the Project Objectives. Therefore, the impacts of "rebuilding Capistrano" can be allocated only to those project alternatives (like SOCREP) which depend on a rebuilt Capistrano. They cannot be allocated to project alternatives (like the Trabuco Alternative or the "no project" alterative) which do not require rebuilding Capistrano to meet the Project Objectives. [FRONTLINES Reply Brief page 15].

- Rebuilding Capistrano is also a precluded element in the CEQA-mandated "no project" alternative because the need to rebuild Capistrano stems from the operation of dilapidated equipment that SDGE has perpetuated for decades and failed to address pursuant to GO-131. It does not relate to the future SOC reliability concerns attributed to load growth, and is therefore not properly addressed in this CPCN Proceeding. As CEQA makes clear, the only elements legitimately included in a "no project" analysis are those activities that the applicant would pursue which are relevant to the project (which in this case, is addressing future SOC reliability concerns attributed to load growth). Ancillary activities such as rebuilding Capistrano that are unrelated to the "project" or unconnected to the objectives of the "project" cannot be simply "tossed in". [FRONTLINES Reply Brief page 14].

- Before issuing a CPCN for a transmission project, Section 1001 of the Public Utilities Code requires the Commission to find that the project is *required* to meet public "convenience" and public "necessary" mandates, and that all of the project elements are *"required"* for the project itself. The Commission cannot approve project elements that are not "necessary" and "convenient" for the public purposes set forth for the project. Therefore, PUC section 1001 does not authorize the inclusion of ancillary activities such as rebuilding Capistrano into any CPCN that is issued. Moreover, SDGE should have addressed the equipment problems at Capistrano decades ago pursuant to GO-131, not PUC 1001.

CAISO'S NEW ARGUMENT REGARDING THE USE OF SPS TO AVOID "LOOP FLOW"

FRONTLINES notes that CAISO had finally landed on an argument to support its contention that using SPS to avoid "loop flow" on Trabuco Alternative J will not meet CAISO's planning standards; it is buried on the last 2 pages of CAISO's Comments on the Alt PD. This argument relies on CAISO's power flow model of Trabuco Alterative J showing that 5 overloaded elements under "loop flow" conditions (TL13835A, TL13846A, TL13816, TL13836 and the "Trabuco-Capistrano-Pico-Laguna Niguel 138 kV system"). CAISO reasons that, because the SPS guidelines set forth in Chapter III of the Planning Standard only authorize 4 monitored elements, the possibility of 5 overloaded elements does not meet the CAISO Planning Standard. However, CAISO's argument fails, because only two monitored elements are necessary to prevent SOC "loop flow" (as FRONTLINES' unrefuted testimony proves):

- As FRONTLINES testified Exhibit 401C[6 at 20], "loop" flow is easily prevented by monitoring the SONGS-Trabuco and SONGS-Santiago lines; if faults occur on these lines, the SPS would simply open the Trabuco Santiago line and disconnect SOC from SCE's system. As clearly shown in FRONTLINES testimony, this mechanism prevents "loop flow" and avoids the 138 kV overloads that CAISO describes in its comments on the Alt PD.] THIS TESTIMONY REMAINS UNREFUTED IN THE RECORD, AND NEITHER SDGE NOR CAISO EVEN BOTHER TO CROSS EXAMINE FRONTLINES' WITNESS.
- An even simpler SPS involving only one monitored element is also possible to prevent "loop" flow for Trabuco Alternative J: if a fault occurs on the SONGS-Trabuco line, the SPS would open the Trabuco Santiago line and disconnect SOC from SCE's system. This will not result in any load loss because SOC load will still be fully served via Talega.
- Finally, the Commission is advised that overloads on TL13835A to Laguna Niguel are already being monitored by an existing SPS [SDGE Ex 1.3R at 58-61] which disconnects TL13835A when the line approaches its thermal limit. Therefore, even if SDGE and CAISO were foolish enough to implement the absurd SPS system that CAISO suggests in its comments on the Alt PD, it would only involve 4 monitored elements (TL13846A, TL13816, TL13836 and "Trabuco-Capistrano-Pico-Laguna Niguel") and would not exceed the 4 element limit identified in CAISO's Planning Standard. FRONTLINES is not recommending implementation of this ridiculous and convoluted SPS. FRONTLINES merely points out that it does comply with the SPS guidelines set forth in CAISO's Planning Standards.

Both CAISO and SDGE know that an SPS monitoring only 2 elements is sufficient to avoid "loop flow" in SOC. Yet, they have both obfuscated this fact and 'muddied the waters" of this Proceeding by positing ridiculous modeling scenarios and absurd SPS mechanisms. Frankly, FRONTLINES is appalled at the lengths to which CAISO and SDGE have gone in this proceeding to avoid a proper analysis of reasonable SPS mechanisms for avoiding "loop flow" concerns in Trabuco Alternative J.

Respectfully Submitted:
/S/ Jacqueline Ayer
On behalf of FRONTLINES

October 24, 2016